



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,944	08/31/2000	Oleg Drapkin	ATI-000152BT	3407
25310	7590	02/16/2006	EXAMINER	
VOLPE AND KOENIG, P.C.			NGUYEN, HIEP	
DEPT. ATI			ART UNIT	
UNITED PLAZA, SUITE 1600			PAPER NUMBER	
30 SOUTH 17TH STREET			2816	
PHILADELPHIA, PA 19103			DATE MAILED: 02/16/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/651,944

Applicant(s)

DRAPKIN ET AL.

Examiner

Hiep Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32, 34, 38 and 40-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34, 38 and 42-44 is/are allowed.
- 6) ☒ Claim(s) 32 is/are rejected.
- 7) ☒ Claim(s) 40 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

This is responsive to the amendment filed on 12-14-05. Applicant's arguments with respect to reference of Nguyen et al. have been carefully considered but they are not deemed to be persuasive to overcome the reference. Thus, the claim remains rejected under Nguyen.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 32 is rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen et al. (USP. 5,973,967).

Regarding claim 32, figure 2 of Nguyen shows a method for reducing distortion of a signal applied to an input of a high frequency circuit (34) inherently having a parasitic capacitance between said input and ground, comprising the steps of:

employing a device (MP1, NM1) responsive to a rate of change of voltage for detecting at said input a direction of change in voltage of said input signal; and

activating a charge pump (MP2) for introducing a current to said parasitic capacitance to prevent said parasitic capacitance from drawing current from said input signal responsive to detection of a rate of change of a positive edge of said input signal by said device: and

said charge pump having a first transistor (MP2) which is activated for preventing discharge of said parasitic capacitance into the input of the circuit by preventing a change of voltage at said input responsive to detection of a rate of change of a negative edge of said input signal. Note that at the positive edge of the input signal (IN), transistor (MP2) is turned on and a current is injected to the input to compensate the current drawn by the parasitic capacitance. At the falling edge of the input signal, transistor (MN2) is turned on and the charge on the parasitic capacitance is bypassed to ground thus, change of voltage at said input is prevented.

Response to Arguments

In the Remarks, the Applicant argues that “Nguyen does not address using the circuit for compensating for parasitic capacitance when a bit is stored or read”. Claim 32 does not contain such limitation. In the second paragraph, the Applicant argues that “Nguyen does not address detecting a negative edge and compensating for it using a transistor in a charge pump”. Figure 2 of Nguyen shows that at the falling edge of the input signal, charge pump transistor (MN2) is turned on and the charge on the parasitic capacitance is bypassed to ground thus, change of voltage at said input is prevented. In figure 2C of the present application, when a positive edge of the input is detected, the pull-up transistor (20) is turned on and the input node (24) is pulled high. Similarly, Figure 2 of Nguyen shows that when the input signal (IN) goes high, pull up transistor (MP2) is turned on and the input is pulled high. Therefore, figure 2 of Nguyen includes all the limitations of claim 32.

Allowable Subject Matter

Claims 34, 38 and 42-44 are allowed because the prior art of records (USP. 5,973,967) fails to teach or suggest an apparatus for reducing distortion of a signal applied to an input of a circuit operating at high frequency having a charge pump comprising: first to third transistors connected to first to third nodes, a fourth transistor connected to a common terminal and ground and a current source connected to the first node and the common node as called for in claims 32 and 34 and 43.

Claims 40 and 41 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Claims 40 and 41 would be allowable because the prior art of records (USP. 5,973,967) fails to teach or suggest an apparatus for reducing distortion of a signal applied to an input of a circuit operating at high frequency comprising: first to fourth transistors, a current source and a capacitor as called for in claim 40.

Conclusion

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep Nguyen whose telephone number is (571) 272-1752. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hiep Nguyen

02-14-06 



TUAN T. LAM
PRIMARY EXAMINER